

Draft Portland Harbor Remedial Action Objectives (RAOs)

December 12, 2014

RAO 1 – Sediments: Reduce human health cancer risk and noncancer hazard that is the result of direct and indirect exposure to beach and in-water sediment with COC concentrations that exceed PRGs (Table 2.2-5). Direct and indirect exposures include incidental ingestion and dermal contact.

RAO 2 – Biota: Reduce human health cancer risk and noncancer hazard that is the result of indirect exposure from consumption of fish and shellfish taken from the site with COC concentrations exceed PRGs (Table 2.2-6). Indirect exposure from consumption of contaminated fish and shellfish occurs via bioaccumulation of contaminants in sediment and/or surface water.

RAO 3 – Surface Water: Reduce human health cancer risk and noncancer hazard that is the result from direct and indirect exposure to surface water with COC concentrations exceed PRGs (Table 2.2-7). Direct and indirect exposure pathways include ingestion, inhalation, dermal contact, and consumption of fish and shellfish.

RAO 4 – Groundwater: Reduce human health cancer risk and noncancer hazard that is the result of direct and indirect exposure to groundwater with COC concentrations exceed PRGs (Table 2.2-8). Direct in indirect exposure pathways include ingestion, inhalation, dermal contact, and consumption of fish and shellfish.

RAO 5 – Sediments: Reduce risk to ecological receptors that is the result of direct and indirect exposure to sediment with COC concentrations exceed PRGs (Table 2.2-9). Direct and indirect exposure pathways include ingestion and direct contact.

RAO 6 – Biota (Prey) Ingestion: Reduce risk to ecological receptors that is the result of indirect exposure from consumption of prey with COC concentrations exceed PRGs (Table 2.2-10). Indirect exposure from consumption of prey occurs via bioaccumulation from contaminants in sediment and/or surface water.

RAO 7 – Surface Water: Reduce risk to ecological receptors that is the result of direct and indirect exposure to surface water with COC concentrations exceed PRGs (Table 2.2-11). Direct and indirect exposure include ingestion of and direct contact with surface water.

RAO 8 – Groundwater: Reduce risk to ecological receptors that is the result of indirect exposure to groundwater with COC concentrations exceed PRGs (Table 2.2-12). Indirect exposure includes ingestion of and direct contact with porewater and through bioaccumulation and consumption of prey.